Amendments to the Claims

Please amend the claims as indicated below. All claims are listed below, with

amended claims so marked. This listing of claims will replace all prior versions, and

listings, of claims in the application:

1   1.   (Currently Amended)   A method for sharing processing capabilities of

2   utilizing multiple network interfaces among said network interfaces, comprising:

3   receiving a first network data to be transmitted by a first network interface

4   according to a protocol;

5   determining ~~whether~~ the first network interface lacks ~~includes~~ hardware

6   supporting the protocol;

7   ~~if the protocol is not supported, then~~ providing said first network data to a second

8   network interface different from the first network interface, the second network interface

9   including hardware supporting the protocol;

10   ~~for~~ transparently processing ~~of~~ said first network data by the second network

11   interface into a second network data according to the protocol; and

12   transmitting said second network data with said first network interface.

13   2.   (Original)   The method of claim 1, wherein the first network interface

14   does not support the protocol, the method further comprising:

15   presenting said first and second network interfaces to a protocol stack as being a

16   homogeneous team of network interfaces.

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1   3.   (Original)   The method of claim 1, wherein the protocol includes

2   encrypting the first network data before submitting said first network data to a network.

3   4.   (Previously Presented)   The method of claim 1, further comprising:

4   communicatively coupling a hardware-based encryption processor with said

5   second network interface, said encryption processor performing said processing of said

6   first network data.

7   5.   (Previously Presented)   The method of claim 4, wherein the hardware-

8   based encryption processor supports a primary mode for encrypting network data for

9   said second network interface, and a secondary mode for encrypting network data for

10   said first network interface.

11   6.   (Original)   The method of claim 5, wherein the said first and second

12   network interfaces operate in an adaptive load balancing mode, and wherein said

13   second network interface interleaves said primary mode encryption with said secondary

14   mode encryption.

15   7.   (Previously Presented)   The method of claim 6, further comprising:

16   providing a third network interface supporting the protocol;

17   wherein processing said first network data into said second network data is

18   balanced across said second and third network interfaces.

19   8.   (Original)   The method of claim 7, wherein said balancing is performed

20   according to a workload of said second and third network interfaces.

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1   9.   (Original)   The method of claim 5, wherein the said first and second

2   network interfaces operate in an adapter fault tolerance mode, and wherein said first

3   network interface is a primary network interface, and said second network interface is a

4   backup network interface.

5   10.   (Previously Presented)   The method of claim 1, wherein the said first

6   and second network interfaces operate in an adaptive load balancing mode, and

7   wherein said second network interface interleaves processing network data for said

8   second network interface with processing said first network data into said second

9   network data.

10   11.   (Original)   The method of claim 1, wherein the said first and second

11   network interfaces operate in an adapter fault tolerance mode, and wherein said first

12   network interface is a primary network interface, and said second network interface is a

13   backup network interface.

14   12.   (Currently Amended)   A readable medium having encoded thereon

15   instructions for sharing processing capabilities of multiple network interfaces among

16   said network interfaces, the instructions capable of directing a processor to:

17   receive a first network data to be transmitted by a first network interface

18   according to a protocol;

19   determine ~~whether~~ the first network interface <u>lacks</u> ~~includes~~ hardware supporting

20   the protocol;

1   ~~if the protocol is not supported, then~~ provide said first network data to a second

2   network interface <u>different from the first network interface, the second network interface</u>

3   including hardware supporting the protocol<u>;</u>

4   <u>transparently process</u> ~~for processing of~~ said first network data <u>by the second</u>

5   <u>network interface</u> into a second network data according to the protocol;and

6   transmit said second network data with said <u>first</u> second network interface.

7   13.   (Original)   The medium of claim 12, wherein the protocol includes

8   encrypting the first network data before submitting said first network data to a network.

9   14.   (Previously Presented)   The medium of claim 12, said instructions

10   including further instructions to direct said processor to:

11   process said first network data into said second network data with a hardware-

12   based encryption processor communicatively coupled with said second network

13   interface.

14   15.   (Previously Presented)   The medium of claim 14, wherein the

15   hardware-based encryption processor supports a primary mode and a secondary mode,

16   said instructions including further instructions to direct said processor to:

17   encrypt network data for said second network interface when said encryption

18   processor is in said primary mode;and

19   encrypt network data for said first network interface when said encryption

20   processor is in said secondary mode.

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1   16.   (Previously Presented)   The medium of claim 15, wherein said first and

2   second network interfaces operate in an adaptive load balancing mode, and wherein

3   said second network interface interleaves said primary mode encryption with said

4   secondary mode encryption.

5   17.   (Previously Presented)   The medium of claim 16, in which a third

6   network interface supports the protocol, said instructions including further instructions to

7   direct said processor to:

8   balance processing said first network data into said second network data across

9   said second and third network interfaces.

10   18.   (Previously Presented)   The medium of claim 17, wherein said

11   balancing is performed according to a workload of said second and third network

12   interfaces.

13   19.   (Previously Presented)   The medium of claim 15, wherein said first and

14   second network interfaces operate in an adapter fault tolerance mode.

15   20.   (Currently Amended)   In a computing device, a network interface

16   team, comprising:

17   a first network interface lacking hardware support for a protocol; and

18   a second network interface different from the first network interface, the second

19   network interface including hardware supporting the protocol, said second network

20   interface configured to transparently process network data for the first network interface

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1   if said network data is to be transmitted according to the protocol and to return

2   processed data to the first network interface.

3   21.   (Previously Presented)   The network interface team of claim 20, further

4   comprising:

5   a first receiver, communicatively coupled to said first network interface, for

6   receiving network data to be transmitted by said first network interface;

7   a second receiver, communicatively coupled to said second network interface, for

8   receiving network data to be transmitted by said second network interface;and

9   a transferor, communicatively coupled with said first network interface and said

10   second receiver, and configured to transfer network data to said second network

11   interface for processing according to the protocol.

12   22.   (Currently Amended)   A method for sharing processing capabilities of

13   members of a system of network interfaces communicatively coupled with and operable

14   to communicate over a network among the system members, comprising:

15   determining a first network interface is to transmit first data having a data

16   configuration;

17   determining the first data is configured in accordance with a protocol

18   unsupported by the first network interface;

19   locating a second network interface of the system including hardware that

20   supports the data configuration;

21   transparently secondarily processing by the hardware of the second network

22   interface of the first data in accordance with the protocol into a second data; and

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1   providing the second data to the first network interface so that the second data

2   appears to have been processed by the first network interface.

3   23.   (Original)   The method of claim 22, further comprising:

4   selecting the first network interface to transmit the first data based at least in part

5   on a load-balancing of network traffic across the plural network interfaces;

6   performing by a driver for the first network interface of said determining the first

7   data is configured according to the protocol unsupported by the first network interface;

8   receiving by the driver of the second data, wherein the data is now in a format

9   supported by the network interface; and

10   providing by the driver of the second data to the first network interface.

11   24.   (Currently Amended) A method for distributing network processing across

12   a team of network interfaces cards including at least a first network interface card (NIC)

13   lacking support for a first specialized capability and a second NIC that supports the first

14   specialized capability, the method comprising:

15   receiving first data to be processed and transmitted by the first NIC to a recipient;

16   determining processing said received first data requires the first specialized

17   capability unsupported by the first NIC;

18   transparently secondarily processing by the second NIC of the first data into

19   second data with the supported first specialized capability; and

20   providing the second data to the first NIC for transmission by the first NIC to the

21   recipient.

1   25.   (Original) The method of claim 24, wherein the second NIC comprises an

2   application specific integrated circuit providing the first specialized capability.

3   26.   (Original) The method of claim 24, wherein the team of network interfaces

4   include a third network that supports a second specialized capability, the method

5   comprising:

6   aggregating specialized capabilities offered by interfaces of the team; and

7   providing a virtual NIC appearing to provide each of the specialized processing

8   capabilities.